PERSONAL INFORMATION   Lucio Ciabattoni

✉ luciociabattoni@gmail.com , l.ciabattoni@univpm.it

🌐 http://www.dii.univpm.it/lucio.ciabattoni

💬 Skype luciagiannetti

Sex Male | Date of birth 12/07/1986 | Nationality Italian

WORK EXPERIENCE

November 2016 - present

Chair
Italian Chapter of the IEEE Consumer Electronics Society

- Applied Artificial Intelligence in the consumer healthcare sector
- Signal analysis and clustering via Machine Learning techniques from wearable sensors and mobile devices
- Consumer and Service Robotics

Business or sector eHealth, consumer healthcare

May 2017 - present

CEO and Co-Founder
Revolt srl (www.revoltsrl.it) - Spinoff Univpm

- Applied Artificial Intelligence for IoT intelligent analytics and self discovering of equipment faults
- "The Comfort Box" - Interoperable (BLE, WiFi, Zigbee, Z-Wave, EnOcean) IoT gateway able to detect the different indoor comfort levels

Business or sector Artificial Intelligence, Machine Learning, IoT

March 2014 - present

PostDoctoral Research Fellow
Universita' Politecnica delle Marche (Via Brecce Bianche, Ancona, Italy)

- Internet of Things applications for Smart Environments, Indoor Comfort, Smart Grid Management and Monitoring
- Robotics applications and Human Robot Interaction
- Applied Artificial Intelligence and Machine Learning to detect emotional states from video and biosignals gathered from commercial wearable devices
- Analysis, modelling, control, prediction and system identification of non linear systems
- Signal analysis and clustering via Machine Learning techniques

Business or sector Applied Artificial Intelligence Research

April 2014 - February 2016

CEO and Co-Founder
META srl (Via Brecce Bianche, Ancona, Italy), www.metasistemi.it

- Design and sizing of Residential Photovoltaic - Battery systems
- Management and control of home automation systems
- Labview programming

Business or sector Home and Industrial Automation

January 2011- January 2013

Research and Development Engineer

Energy Resources SPA (Via Ignazio Silone, Jesi, Italy)

- Design of Photovoltaic - Battery systems for islanding of rural houses
- Management and control of li-ion and lead acid batteries (Smart Energy System)
- Programming of microcontrollers
- Design of dataloggers for PV plants
- Customer Service / Customer Assistance

Business or sector Renewable Energies

EDUCATION AND TRAINING

January 2011 - March 2014

PhD in Automation Engineering

Università Politecnica delle Marche (Italy)

University of Arizona (USA) from November 2012 to May 2013

- Applied Artificial intelligence (modeling, forecasting and identification problems)
- Applied Artificial Intelligence for li-ion batteries control and management
- Analysis, modelling, prediction and system identification of distributed energy systems
- Labview and Matlab simulation and programming

October 2008 - December 2010

Master Degree in Automation Engineering (cum laude)

Università Politecnica delle Marche (Italy)

- Non linear control techniques for electrical motors
- Microcontrollers programming (C, C++)
- Fault diagnosis of electrical systems

October 2005 - October 2008

First Level Degree in Computer Science and Automation Engineering (cum laude)

Università Politecnica delle Marche (Italy)

- Basic Programming (C, C++, Labview, Matlab)
- Analysis and active control of vibration for planar structures

PERSONAL SKILLS

Mother tongue(s)   Italian

Other language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
C1	C2	C1	C1	C1
First Certificate in English received in 2005.				
B2	B1	B1	B2	A2
Replace with name of language certificate. Enter level if known.				

English

French

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communication skills	• good communication skills gained through my experience in the Customer Service of the company Energy Resources SPA and during the management and leading of EU and national projects meetings
Organisational / managerial skills	• great attitude for team working gained through my experience in the research group at the Università Politecnica delle Marche and in the R&D department of the company Energy Resources SPA
Computer skills	• Certificate **Labview** Associate Developer (CLAD) license n. • good command of Microsoft Office™ tools • good programming skills (C, Python, Arduino, Matlab, Labview)

ADDITIONAL INFORMATION

Certificates	Professional engineer certificate to perform engineer services (Italy, September 2012) Certificate **Labview** Associate Developer (CLAD) license n. (Italy, February 2015) First Certificate in English (Italy, June 2005)

Publications

List of publications on International Conferences and Journals (author and co-author until December 2015, the full updated list can be found on Google Scholar - Lucio Ciabattoni):

Fuzzy logic based economical analysis of photovoltaic energy management. Neurocomputing 07/2015; 170. DOI:10.1016/j.neucom.2015.01.086

Household Electrical Consumptions Modeling and Management Through Neural Networks and Fuzzy Logic Approaches. Studies in Fuzziness and Soft Computing 01/2015: pages 437-467; Springer International Publishing., ISBN: 14349922

Multi-apartment residential microgrid monitoring system based on kernel canonical variate analysis. Neurocomputing 07/2015; DOI:10.1016/j.neucom.2015.04.099

Indoor thermal comfort control through fuzzy logic PMV optimization. 2015 International Joint Conference on Neural Networks, IJCNN 2015, Killarney, Ireland; 07/2015

Solar Irradiation Forecasting for PV Systems by Fully Tuned Minimal RBF Neural Networks. Smart Innovation, Systems and Technologies, 05/2013: pages Volume 19, 2013, Pages 289-300; Springer-Verlag Berlin Heidelberg., ISBN: 978-364235466-3

Fuzzy logic home energy consumption modeling for residential photovoltaic plant sizing in the new Italian scenario. Energy 09/2014; 74(1):359-367. DOI:10.1016/j.energy.2014.06.100

A Discrete-Time VS Controller based on RBF Neural Networks for PMSM Drives. Asian Journal of Control 03/2014; 16(1):1-13. DOI:10.1002/asjc.715

RBF neural networks based quasi sliding mode controller and robust speed estimation for PM Synchronous Motors. IECON 2010; 01/2015

Smartphone based Fuzzy Logic freezing of gait detection in Parkinson's Disease. Mechatronic and Embedded Systems and Applications (MESA), 2014 IEEE/ASME 10th International Conference on, Senigallia (AN), Italy; 09/2014

Fuzzy *logic simulator for energy management algorithms testing.* Mechatronic and Embedded Systems and Applications (MESA), 2014 IEEE/ASME 10th International Conference on, Senigallia (AN), Italy; 09/2014

Modular design of a novel wireless sensor node for smart environments. Mechatronic and Embedded Systems and Applications (MESA), 2014 IEEE/ASME 10th International Conference on, Senigallia (AN), Italy; 09/2014

Home energy management benefits evaluation through fuzzy logic consumptions simulator. Neural Networks (IJCNN), 2014 International Joint Conference on, Beijing, China; 07/2014

An interoperable framework for home automation design, testing and control. Control and Automation (MED), 2014 22nd Mediterranean Conference of, Palermo, Italy; 06/2014

Application of a wireless sensor networks and Web2Py architecture for factory line production monitoring. 2014 IEEE 11th International Multi-Conference on Systems, Signals and Devices, SSD 2014, Castelldefels-Barcelona; Spain; 02/2014

Design of a home energy management system by online neural networks. 11th IFAC International Workshop on Adaptation and Learning in Control and Signal Processing, ALCOSP 2013, Caen; France; 07/2013

Experimental validation of a dynamic linear model of photovoltaic-thermal collector. 39th IEEE Photovoltaic Specialists Conference, PVSC 2013, Tampa, FL; United States; 06/2013

Neural networks based home energy management system in residential PV scenario. 39th IEEE Photovoltaic Specialists Conference, PVSC 2013, Tampa, FL; United States; 06/2013

A Fuzzy Logic tool for household electrical consumption modeling. Industrial Electronics Society, IECON 2013 - 39th Annual Conference of the IEEE; 01/2013

A smart lighting system for industrial and domestic use. Mechatronics (ICM), 2013 IEEE International Conference on; 01/2013

A novel photovoltaic-thermal collector prototype: Design, modeling, experimental validation and control. Industrial Electronics Society, IECON 2013 - 39th Annual Conference of the IEEE; 01/2013

Online tuned neural networks for fuzzy supervisory control of pv-battery systems. Innovative Smart Grid Technologies (ISGT), 2013 IEEE PES; 01/2013

Supervisory control of PV-battery systems by online tuned neural networks. Mechatronics (ICM), 2013 IEEE International Conference on; 01/2013

Online tuned neural networks for PV plant production forecasting. Photovoltaic Specialists Conference (PVSC), 2012 38th IEEE; 01/2012

On line solar irradiation forecasting by minimal resource allocating networks. Control & Automation (MED), 2012 20th Mediterranean Conference on; 01/2012

Solar irradiation forecasting using RBF networks for PV systems with storage. Industrial Technology (ICIT), 2012 IEEE International Conference on; 01/2012

Estimation of rotor position and speed for sensorless DSP-based PMSM drives. 19th Mediterranean Conference on Control & Automation (MED), 2011; 06/2011

Adaptive extended kalman filter for robust sensorless control of PMSM drives. Proceedings of the IEEE Conference on Decision and Control; 01/2011

Presentations and Conferences	Speaker at the following International Conferences:

Speaker at the following International Conferences:
- IEEE 2015 International Joint Conference on Neural Networks, IJCNN, Killarney, Ireland; July 2015
- IEEE 2016 World Congress on Computational Intelligence, WCCI, Vancouver, British Columbia, July 2016
- IEEE Photovoltaic Specialists Conference (PVSC), Tampa, FL, USA, June 2013
- IEEE International Conference On Consumers Electronics (ICCE), Las Vegas, NV, USA, January 2015
- IEEE International Symposium On Consumers Electronics (ISCE), Madrid, Spain, June 2015
-
- IEEE International Conference On Consumers Electronics (ICCE), Las Vegas, NV, USA, January 2016
- IEEE International Conference On Consumers Electronics (ICCE-Berlin), Berlin, Germany, September 2016
- IEEE 39th Annual Conference of the IEEE Industrial Electronics Society (IECON), Wien, Austria, November 2013
- IEEE 11th International Multi-Conference on Systems, Signals and Devices (SSD), Castelldefels-Barcelona; Spain
- IEEE Mediterranean Conference on Control & Automation (MED), Palermo, Italy, June 2014
- IEEE Innovative Smart Grid Technologies (ISGT), Washington DC, USA, February 2013
- IEEE Photovoltaic Specialists Conference (PVSC), Austin, TX, USA, June 2012
- IEEE International Conference on Industrial Technology (ICIT), Atene, Greece, March 2012
- IEEE 10th International Conference on Mechatronic and Embedded Systems and Applications (MESA), Senigallia (AN), Italy, September 2014
- IEEE Decision and Control and European Control Conference , Orlando, FL, USA, December 2011

Seminars **Held**	Seminars held at the university of Arizona:

Seminars held at the university of Arizona:
- Artificial Intelligence - Neural Networks , March 2013
- Artificial Intelligence - Fuzzy Systems , April 2013
- Labview: an Introduction, April 2013
- Electical Storage Systems for Distributed Energy Resources: Issues and Solutions, (February 2013)

Seminars held at the "Università Politecnica delle Marche":
- Matlab - Simulink , November 2012
- Labview FPGA programming, September 2012
- Artificial Intelligence , November 2013, 2014
- Neural Networks: Application Overview, March 2014

Membership	**IEEE Member** n°92184503, since January 2012

- **IEEE Member** n°92184503, since January 2012